

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Case No. 01-1693-M)

In the Application of:	)	
	)	
Beck, et al.	)	Examiner: Sudhaker B. Patel
	)	
Serial No.: 09/895,843	)	Art Unit: 1624
	)	
Filed: June 29, 2001	)	Confirmation No. 5924
	)	
For: Compounds for the Treatment	)	
of Alzheimer's Disease	)	

REQUEST FOR CERTIFICATE OF CORRECTION  
PURSUANT TO 37 C.F.R. § 1.322

Attention: Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

Dear Sir:

This is a request for issuance of the accompanying Certificate of Correction pursuant to 35 U.S.C. § 254 and 37 C.F.R. § 1.322(a). The Assignees of Record, Pharmacia & Upjohn Company and Elan Pharmaceuticals, Inc., seek to correct clerical errors in the above-identified Patent. The corrections are as follows:

In References Cited, please add the following references which were signed by the Examiner but not listed on the face of the Patent:

**US Patent Documents**

5,703,129	12/30/1997	Felsenstein et al.
5,886,046	03/23/1999	Hirschmann et al.

**Foreign References**

WO 87/02986	05/21/1987	PCT
WO 87/04349	07/30/1987	PCT
WO 87/05330	09/11/1987	PCT

WO 89/00161	01/12/1989	PCT
WO 89/01488	02/23/1989	PCT
WO 89/05859	06/29/1989	PCT
WO 90/13646	11/15/1990	PCT
WO 91/00360	01/10/1991	PCT
WO 92/00750	01/23/1992	PCT
WO 92/17490	10/15/1992	PCT
WO 92/20372	11/26/1992	PCT
WO 93/02057	02/04/1993	PCT
WO 93/08829	05/13/1993	PCT
WO 93/17003	09/02/1993	PCT
WO 94/04492	03/03/1994	PCT
WO 95/06030	03/20/1995	PCT
WO 97/30072	08/21/1997	PCT
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WO 98/33795	08/06/1998	PCT
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WO 01/00665	01/04/2001	PCT
WO 01/19797	03/22/2001	PCT
WO 01/23533	04/05/2001	PCT
WO 01/29563	04/26/2001	PCT
WO 01/51659	07/19/2001	PCT
WO 98/38167	09/03/1998	PCT
WO 96/35414	11/14/1996	PCT
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### **Other Publications**

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Henning, "A. Synthetic Routes to Different Classes of Natural Products and Analogs Thereof - Synthesis of Hydroxyethylene Isoteric Dipeptides," *Organic Synthesis Highlights II*, 251-259 (1995)

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Larock, "Carboxylic Acids to Amides," Comprehensive Organic Transformations, Chpt. 4, 972-985 (1986)

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Shugo et al., Chemical and Pharmaceutical Bulletin, Vol 40, No. 2, 1992

Ping et al., J. Med. Chem., Vol. 39, No. 10, pp. 1991-2007 (1996)

Raddatz et al., "Substrate Analogue Renin Inhibitors Containing Replacements of Histidine in P2 or Isosteres of the Amide bond Between P3 and P2 Sites," J. Med. Chem., 34:11, 3267-3280 (1991)

Nishi et al., Chemistry Letters, 1983-1996 (1989)

Harbeson et al., J. of Med. Chem., 32:6, 1378-1392 (1989)

Thaisrivongs et al., J. Med. Chem., 31, 7, 1369-1376 (1988)

Nakano et al., Bulletin of the Chemical Society of Japan, 63:8, 224-2232 (1990)

Kaltenbronn et al., J. Med. Chem., 33, 2, 838-845 (1990)

Plummer et al., Bioorganic & Medicinal Chemistry Letters, 9, 835-840 (1999)

The Assignees respectfully submit that the requested corrections do not constitute new matter, nor do they require substantive examination of the file.

The Assignees respectfully submit the above-mentioned errors were a mistake of the Patent and Trademark Office and, thus, the Assignees believe that no fee is due. If the Examiner believes otherwise, the Assignees authorize the Commissioner to deduct any fee from the Deposit Account No. 13-2490 pursuant to 37 C.F.R. §§ 1.20(a) and 1.323.

Enclosed is a complete Certificate of Correction for US Patent No. 6,846,813 B2 , which issued January 25, 2005.

Consideration of this Request and issuance of the Certificate of Correction are respectfully requested.

Respectfully submitted,

Date: February 12, 2008

/Bradley W. Crawford/

Bradley W. Crawford  
Registration No. 50,494

**McDonnell Boehnen Hulbert & Berghoff LLP**  
300 South Wacker Drive, 31<sup>st</sup> Floor  
Chicago, IL 60606  
(312) 913-0001

# UNITED STATES PATENT AND TRADEMARK OFFICE

## CERTIFICATE OF CORRECTION

Page 1 of 7

PATENT NO. : 6846813

APPLICATION NO.: 09895843

ISSUE DATE: : January 25, 2005

INVENTOR(S) : Beck et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:  
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WO 98/29401	07/09/1998	PCT
WO 98/33795	08/06/1998	PCT

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This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Li et al., "Photoactivated V-secretase Inhibitors Directed to the Active Site Covalently Label Presenilin I," Nature, 405, 689-694 (2000)

Shugo et al., Chemical and Pharmaceutical Bulletin, Vol 40, No. 2, 1992

Ping et al., J. Med. Chem., Vol. 39, No. 10, pp. 1991-2007 (1996)

Raddatz et al., "Substrate Analogue Renin Inhibitors Containing Replacements of Histidine in P2 or Isosteres of the Amide bond Between P3 and P2 Sites," J. Med. Chem., 34:11, 3267-3280 (1991)

Nishi et al., Chemistry Letters, 1983-1996 (1989)

Harbeson et al., J. of Med. Chem., 32:6, 1378-1392 (1989)

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CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 6846813

APPLICATION NO.: 09895843

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INVENTOR(S) : Beck et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Thaisrivongs et al., J. Med. Chem., 31, 7, 1369-1376 (1988)

Nakano et al., Bulletin of the Chemical Society of Japan, 63:8, 224-2232 (1990)

Kaltenbronn et al., J. Med. Chem., 33, 2, 838-845 (1990)

Plummer et al., Bioorganic & Medicinal Chemistry Letters, 9, 835-840 (1999)

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